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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,316	07/25/2003	Timothy Neill	200208568-1	1916
22879 7590 07/30/2008 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400				
EXAMINER				
TRAN, CHUC				
ART UNIT		PAPER NUMBER		
2821				
NOTIFICATION DATE		DELIVERY MODE		
07/30/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/627,316

Applicant(s)

NEILL ET AL.

Examiner

CHUC D. TRAN

Art Unit

2821

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 15-19, 27-29, 31 and 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12 and 15-19 is/are allowed.
- 6) ☒ Claim(s) 1-11, 27-29, 31 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-12, 15-19, 27-29 and 31-32 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-11, 27-29 and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al (USP. 6,236,366) in view of Zuckerman et al (USP. 5,404,577).

Regarding claim 1, Yamamoto disclose a radio module for an electrical device in Fig. 7 and 8, comprising: a radio transceiver (IC) (6) (Fig. 7A); an antenna (4) electrically coupled to the radio transceiver (Col. 8, Line 26) (Fig. 7). However, Yamamoto is silent on the limitation of an electromagnetic shield (foam) disposed around the antenna to isolate the antenna from loading effects of components of the electrical device that are external to the radio module, wherein the radio transceiver is external located outside the electromagnetic shield that is disposed around the antenna. Zuckerman disclose a radio communication system in Fig. 11 comprising an electromagnetic shield (foam) (109) disposed around the antenna (114) inside housing (108) (Zuckerman, Col. 11, Line 55, Fig. 11). Thus, it would have been obvious to one having ordinary skill in the art to modify Yamamoto's radio module by providing the electromagnetic shield (foam) disposed around the antenna to isolate the antenna from loading effects of components of

the electrical device that are external to the radio module as taught by Zuckerman. Using the known of the electromagnetic shield (foam) disposed around the antenna for isolating the outside electromagnetic noise and the radio transceiver is external located outside the electromagnetic shield (foam) to prevent the electromagnetic interference to the radio module of Yamamoto would have been obvious to one of ordinary skill.

Regarding claim 2, Yamamoto disclose that a shield radio transceiver (13) (Fig. 7) operates as an electromagnetic shield for one side of the antenna (4) (Col. 10, Line 21) (Fig. 7A).

Regarding claim 3, Yamamoto disclose in Fig. 3 that the antenna (4) is disposed on a conventional printed circuit board (44) (Col. 8, Line 9).

Regarding claim 4, Yamamoto disclose in Fig. 7 that the shield (13) comprises a metal plate (12) coupled to the PCB (44) (Fig. 6 and 7).

Regarding claim 5, Yamamoto disclose in Fig. 7 that the shield (13) is disposed relative to the transceiver (6) to isolate the electromagnetic wave (Col. 10, Line 22)

Regarding claims 6 and 7, Yamamoto disclose in Fig. 3 that a cover, housing (41) (ground) disposed over, around the antenna (4) and adapted to extend through an opening in the side of the electrical device (Fig. 3 and 5), the cover (antenna metal ground) is generally transparent radio signal (Col. 8, Line 1).

Regarding claim 8, Yamamoto disclose that the housing (3) is disclosed around the transceiver (6) (Fig. 5).

Regarding claim 9, Yamamoto disclose in Fig. 7 that the housing (3) comprises a conductive metal (Col. 9, Line 64).

Regarding claim 10, Yamamoto disclose that the housing (3) comprises a polymeric (non-conductive) material having a conductive coating (Col. 9, Line 62).

Regarding claim 11, Yamamoto disclose that the housing (3) comprises a periodic-band-gap (dielectric or non-conductive) material (Col. 9, Line 62).

Regarding claims 27 and 31, Yamamoto disclose a method of manufacturing a radio module for use within an electrical device in Fig. 8, comprising: tuning (converting frequency) an antenna to produce a maximum output at a defined load (Col. 11 Line 16-19); disposing a shield radio transceiver (13) operates as an electromagnetic shield for the antenna (4) (Col. 10, Line 21) (Fig. 7). However, Yamamoto is silent on the limitation of an electromagnetic shield (foam) disposing around the antenna to isolate the antenna from electrical noise of components of the electrical device that are external to the radio module. Zuckerman disclose a radio communication system in Fig. 11 comprising an electromagnetic shield (foam) (109) disposed around the antenna (114) inside housing (108) (Zuckerman, Col. 11, Line 55, Fig. 11). Thus, it would have been obvious to one having ordinary skill in the art to modify Yamamoto's radio module by providing the electromagnetic shield (foam) disposed around the antenna to isolate the antenna from electrical noise of components of the electrical device that are external to the radio module as taught by Zuckerman. Using the known of the electromagnetic shield (foam) disposing around the antenna for isolating the outside electromagnetic noise to prevent the electromagnetic interference to the radio module of Yamamoto would have been obvious to one of ordinary skill.

Regarding claim 28, Yamamoto disclose in Fig. 7 that an antenna housing (3) around a perimeter of antenna (4) (Fig. 7B).

Regarding claim 29, Yamamoto disclose in Fig. 3 that disposing the antenna (4) on a primed circuit board (44) and disposing a conductive plate (41) (ground) (Col. 8, Line 1) on the printed circuit board opposite the antenna (Fig. 3).

Regarding claim 32, Yamamoto disclose that fabricating the shield with open side (10) to enable radio signals to be transmitted to and received by the antenna (Col. 8, line 30) (Fig. 2).

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHUC D. TRAN whose telephone number is (571)272-1829. The examiner can normally be reached on M-F Flex hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Owens can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chuc D Tran/

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Examiner, Art Unit 2821

/Douglas W Owens/

Supervisory Patent Examiner, Art Unit 2821

July 25, 2008